CRIMSON
RENEWABLE ENERGY, LP

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Who is Crimson ?

- A part of Crimson Midstream LLC, a holding company with operations in petroleum pipelines, petro-chemicals transshipment and specialty asphalt products.
- Owns and operates the largest biodiesel production facility in California
- Production rate is currently 10 million gallons per year with average LCFS CI value of 12-15
- Runs mostly on used cooking oil but also utilizes inedible corn oil from ethanol plants and animal fats
- Biodiesel sold to major oil companies (i.e. Chevron, Exxon, Tesoro, Valero), fuel wholesalers and truck stop operators
- Expansion underway to 17-18 million gallons per year with improved sustainability and ability to run more ultra low carbon feedstocks – expected completion Q1 2015
- Glycerin byproduct is also produced and sold as animal feed additive, dust control ingredient, or as base raw material

Rapidly growing biodiesel & renewable diesel usage

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- Biodiesel production in the U.S. has increased from 700 mil gal in 2008 to 1,100 mil gal in 2011 to 1,800 mil gal in 2013
- Biodiesel and Renewable Diesel blending rapidly growing in CA
  - Biodiesel consumption in CA in 2014 projected at 75-90 mil gal(~30 mil gal from in-state producers)
  - Renewable diesel consumption in CA 2014 projected at 40-60 mil gal (mostly imported from Asia)
  - Both types will be up 60-100% in 2014 vs 2013
- Fuel terminal infrastructure capable of blending biodiesel is growing
  - In 2010, only 1 fuel terminal supported biodiesel blending
  - In 2013 – KM Fresno, KM Colton, Chevron Montebello, Tesoro East Heinz, Tesoro Stockton, Chemoil, Petro Diamond
  - More terminals with biodiesel blending are coming - Tesoro, Kinder Morgan, Chevron
- LCFS is the big driver in California

California & Federal heavy-duty vehicle emissions standards trends

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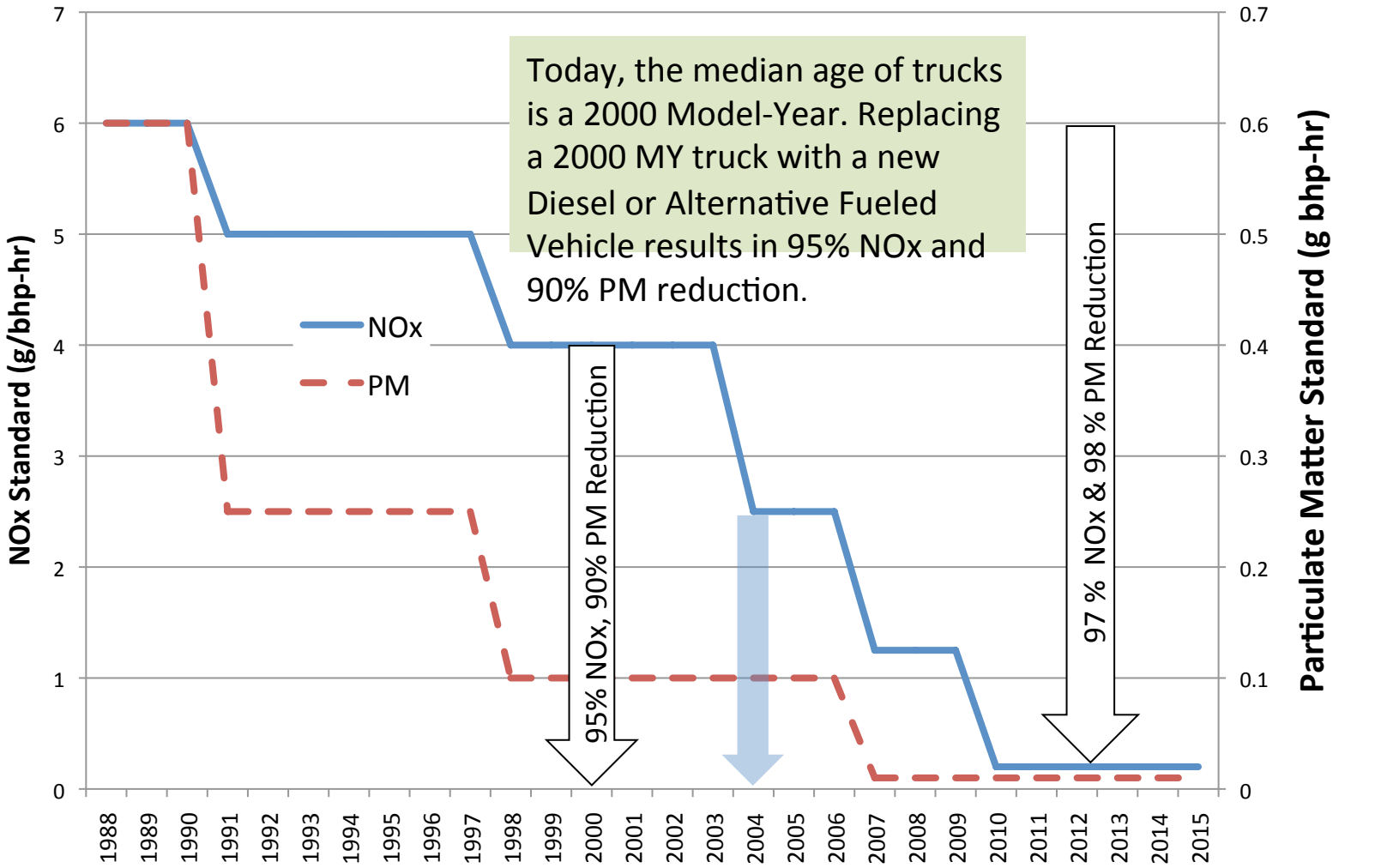

Biodiesel & renewable diesel usage in CA is already mostly waste/second-use feedstocks

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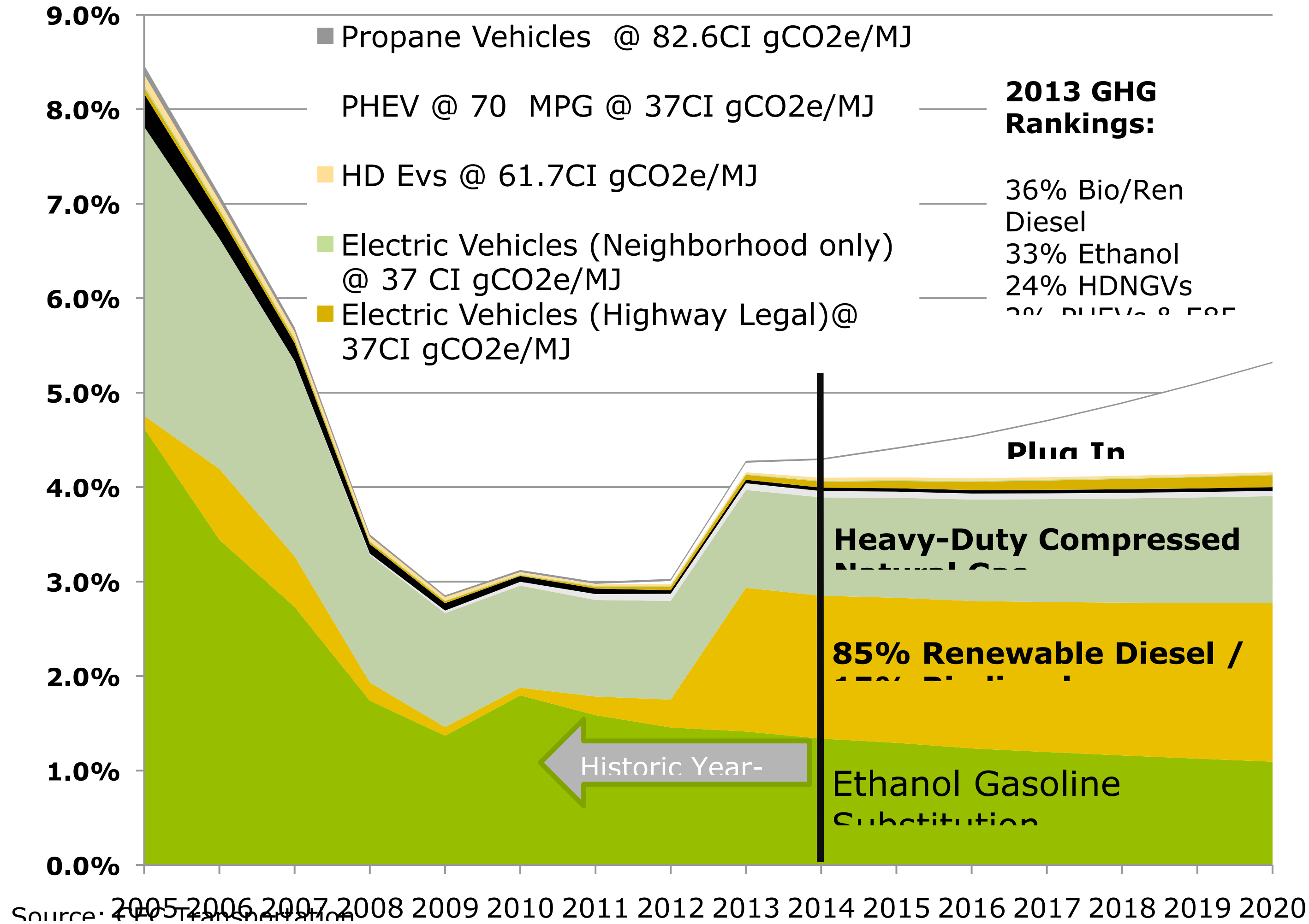
- 80% of biodiesel and 100% of renewable diesel production capacity in California is based on waste/second-use feedstocks (mostly used cooking oil)
- Due to LCFS, majority of out-of-state biodiesel imported into California is produced from waste/second-use feedstock
- Renewable Diesel coming into California is produced from animal fats (Neste Oil) or combination of virgin oils, Distiller's corn oil, and animal fats (Diamond Green)
- Due to the very low CI value of waste / second-use based biodiesel and renewable diesel, these generate a disproportionately large share of the LCFS carbon credit generation relative to the volume of such fuels
- These alternative diesel also have important air quality benefits such as a 48% reduction in PM10 emissions

AF & AFV % Contribution to the Statewide GHG Reduction



Biodiesel & Renewable Diesel Feedstocks Globally

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- Current Virgin Oils
  - Soy
  - Canola / Rapeseed
  - Camelina and Mustard Seed(very small scale/ no RFS or LCFS pathway)
  - Cottonseed (no RFS or LCFS pathway)
  - Jatropha (very small scale; no RFS or LCFS pathway non-U.S. origin)
  - Palm (significant opposition from NGOs; ILUC concerns; no RFS or LCFS pathway; non-U.S. origin)
- Current Waste / Second Use Feedstocks
  - Used Cooking Oil / Yellow Grease
  - Distiller's Corn Oil derived by ethanol production
  - Animal Fats (Tallow, Choice White / Lard, Poultry)

Biodiesel & Renewable Diesel Feedstocks in U.S

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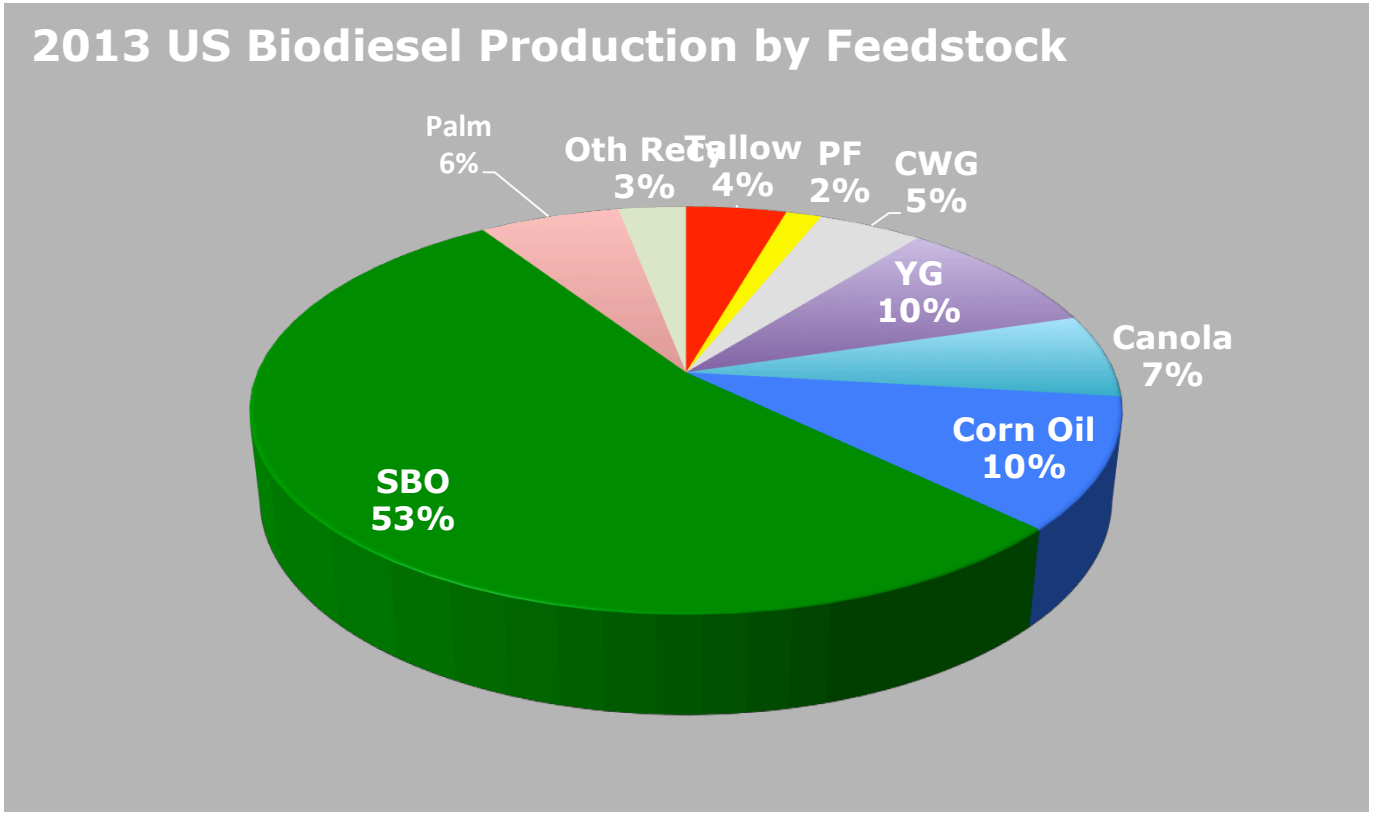

Source: U.S. Energy Information Agency

- In 2008, Soybean Oil (SBO) accounted for 90%+ of total U.S. biodiesel production; in 2013 SBO was only 53%

Future Waste/ Second Use Feedstocks in U.S

- Brown Grease
- Tall Oil / Tall Oil Fatty Acid (TOFA)
- Very high FFA animal fats (i.e. dead stock tallow)
- Palm Sludge Oil (but significant opposition from NGOs and ILUC concerns)
- Palm Fatty Acid Distillates (but significant opposition from NGOs and ILUC concerns)
- All of the above are available in significant quantities
- All of the above tend to have very high FFA 25-100%

Challenges of using new waste feedstocks

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- Need to convert very high FFA (25-100%)
  - TOFA – 100% FFA
  - Brown grease 60-90% FFA
  - Dead stock animal fats – 25-45% FFA
- May have higher degree of undesirable impurities, i.e. sulfur, metals
- Require new processing technologies

New Processing Technologies

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- Super-Critical
  - Use of ultra high temperature(475F min) and pressure (1200 psi min) to convert FFA and triglycerides into esters/biodiesel
- Enzymatic
  - Use of enzymes to convert FFA and possibly triglycerides into esters/biodiesel
- Heterogeneous catalysts
  - Use of a single catalyst to convert FFA and triglycerides into esters/biodiesel

Conclusion

- Use of alterative diesel fuels is growing rapidly nationwide and in California
- RFS and LCFS are the big drivers
- Biodiesel and Renewable Diesel made from waste/ second-use feedstocks are now major participants in the California transportation fuels landscape and growing
- Biodiesel and Renewable Diesel are the only very low carbon transportation fuels that available in large volumes
  - Biodiesel from distiller's corn oil and sued cooking oil have carbon intensity values ranging from 4 to 18
- New biodiesel process technologies are already beginning commercial-scale production to take advantage of waste / second-use feedstocks such as brown grease
  - Commercial-scale plants featuring enzymatic and heterogeneous catalyst processes are running in U.S., Europe and Asia

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THANK YOU

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